

# Bureau Of Land Management

**Tony Petrongolo, Chief**

The Bureau of Land Management is responsible for administering the division's rapidly-growing Wildlife Management Area system which now comprises over 260,000 acres. These areas are managed for a diversity of fish and wildlife species through a variety of habitat improvement programs. Public access for wildlife-associated recreation is encouraged through the development of visitor facilities, maintenance of roads and bridges and the construction of parking areas and boat ramps.

The Bureau of Land Management is also responsible for stocking game birds and fish, and the maintenance of division facilities including buildings, shooting ranges, dams and water control structures. In addition, the bureau handles special projects such as the renovation of the Rockport Pheasant Farm and oversight of the habitat and recreational aspects of the Delaware Estuary Enhancement Program of Public Service Electric and Gas. The bureau also provides technical assistance to the state's Green Acres Program in the acquisition of open space and critical fish and wildlife habitat.

New Jersey's Wildlife Management Area System continues to expand at a rapid rate under Governor Whitman's Open Space Initiative. Approximately 8,000 acres were assigned to Fish and Wildlife during the past year. Highlights include the acquisition of the new 500 acre Beaver Brook Wildlife Management Area in Warren County, the new 846 acre White Oak Branch Wildlife Management Area in Gloucester County and the 250 acre South Branch Wildlife Management Area in Morris County, the first acquisition in the development of a new greenway along one of the state's premier trout streams, the South Branch of the Raritan River.

This past year, a new wildlife management area in Salem County was dedicated, D.O.D. Ponds. This 350 acre tract, including 125 acres of highly productive freshwater ponds, is being leased from the Army Corps of Engineers. Here, new roads, parking areas and a concrete boat ramp were constructed by

division personnel to provide angler access to the ponds and the adjacent Delaware River. New access to this parcel, which had been closed to public use for over 30 years, also provides excellent opportunities for birders to view warblers, raptors and waterfowl using the traditional Delaware River migration corridor.

## Bureau of Law Enforcement

**Rob Winkel, Chief**

The Bureau of Law Enforcement is responsible for enforcing regulations which protect wildlife and its habitat. Highly trained Conservation Officers (C.O.s) patrol the state and its waters using the latest in law enforcement technology to compliment traditional methods.

Conservation Officers are among the division's most visible representatives, contacting thousands of citizens each year. In the field they educate and redirect the actions of wildlife users to ensure compliance with division policies and the specifics of the Fish and Game Codes, marine regulations and other land use regulations. This serves to prevent abuses to the environment and help people enjoy wildlife in safe and ethical ways.

While core responsibilities of C.O.s and their deputies have remained constant for more than 100 years, this report period saw an added emphasis on community policing initiatives. As development continues in areas with abundant wildlife and where hunting occurs, officers must work to balance the safety of the public and the lawful harvest of game. The difficulty increases when people who have relocated into rural areas and enjoy wildlife do not have an understanding of hunting and wildlife management.

## Deputy Program

Deputy Conservation Officers are volunteers who work not only without compensation, but purchase their own equipment. They are a critical component of the bureau's enforcement program, enhancing our full-time staff's capabilities. Deputies contribute more than 6,000 hours annually, assisting Conservation Officers on weekends, holidays and other priority patrol times. Many law enforcement operations would not be successful without the many hours contributed by these dedicated individuals.

Each year, the state Fish and Game Council recognizes one deputy for his outstanding service. This year Ron Galvin received this prestigious award for his dedication to the protection of our valuable wildlife resource and his commitment to his fellow officers. Ron retired this year after 34 years of dedicated service. The northern law enforcement region where Ron worked during his tenure with the bureau will be hard pressed to replace him.

## Highlight

The bureau's Special Investigation Unit concluded a statewide undercover investigation on the illegal sale of striped bass, white-tailed deer and black bear in Bergen, Cumberland, Hunterdon, Mercer, Middlesex, Morris and Somerset counties. Current state law prohibits the sale of white-tailed deer (since 1918), striped bass (since 1991) and black bear.

During phase I of the investigation, Conservation Officers sold 373 striped bass and eight deer, as well as the parts of three bears, in addition to purchasing 15 striped bass or servings of bass at restaurants. Officers identified 21 restaurants that sold and/or purchased these protected species for resale to customers. In this phase of the investigation, 51 charges resulted in the collection of \$36,000 in penalties.

Phase II of the investigation focused on fishermen who were trafficking striped bass. During that investigation, two individuals from Port Norris, Cumberland County, were charged with selling 70 striped bass (39 of which were undersize) to undercover officers and possession of twenty-five weakfish over the daily catch limit.



Phase III focused on a restaurant that was serving wild venison. In that investigation, an individual from Frenchtown, Hunterdon County, was charged with purchasing wild deer from an undercover officer with the intent to prepare and distribute the meat for resale. Eleven charges were filed for the possession and illegal purchase of six deer. The individual pled guilty and paid \$9,000 in penalties.

In addition to the other investigation phases, Conservation Officers arrested an individual from Flushing, New York on charges of three counts of illegally purchasing black bear parts (gall bladders and paws), five counts of possession of black bear parts and two counts of unlawfully purchasing white-tailed deer. The individual purchased 22 deer fetuses and 11 sets of deer antlers still in velvet for resale on the folk medicine black market. The violations could result in not only up to \$33,500 in fines but, also more than four years in prison.

## Marine Fisheries Administration

Tom McCloy, Administrator

The Marine Fisheries Administration includes the Bureaus of Marine Fisheries and Shellfisheries. The Administration supervises and coordinates the planning, organization, operation and management of the marine and estuarine finfish and shellfish resources of New Jersey. The Administration coordinates New Jersey's fishery management activities on a coastwide basis with the Atlantic States Marine Fisheries Commission and the Mid-Atlantic Fishery Management Council.

## Bureau of Marine Fisheries

The Bureau of Marine Fisheries is responsible for management programs which protect, conserve and enhance the marine fisheries resources. The bureau conducts research and inventory projects to provide data on fishery resources and various user groups to develop and implement sound management plans. New Jersey's research data is combined with information from other Atlantic states and federal management agencies to support coastwide management plans for the various fishery resources.

The bureau also protects habitat by providing a scientific review of various development proposals that may impact the marine resources.

During 1998, total commercial landings for New Jersey were in excess of 195 million pounds with a dockside value of approximately \$91 million. Cape May continues to be one of the nation's leading commercial fishing ports with landings of 94 million pounds worth \$29 million.

The bureau issued approximately 551 netting licenses, of which gill nets comprised 68%. The other 32% consisted of licenses for bait nets, otter trawls, purse seines, haul seines, fyke nets, pounds nets, parallel nets and lobster/fish pots. In addition, licenses were issued to more than 378 commercial crab potters, 228 crab dredgers, and 5,900 recreational crab pot users. Revenue from all licenses exceeded \$169,000.

National Marine Fisheries Service data showed that New Jersey has an estimated 800,000 saltwater anglers who made 4.3 million fishing trips during the year. The top five species harvested were: summer flounder—2.7 million; weakfish—920,000; bluefish—820,000; black sea bass—300,000; and winter flounder—175,000.

Since most of the marine fisheries species managed are migratory in nature they are managed on a coastwide basis by the Atlantic States Marine Fisheries Commission (ASMFC) and/or the Mid-Atlantic Fishery Management Council (MAFMC). The bureau plays a vital role by representing New Jersey fishermen and fisheries through these organizations. Recent federal legislation has

mandated that states implement every fishery management plan approved by the ASMFC.

Each management plan requires that states implement the required measures of the plan, enforce those measures and monitor the status of the stock. States failing to comply with the requirements of the plan risk a federally imposed moratorium in the non-complying state for those species covered by the plan. There are currently 15 approved ASMFC plans which include species important to New Jersey such as weakfish, summer flounder, striped bass, menhaden, bluefish, black sea bass, winter flounder and tautog.

In addition to the above organizations, the Bureau of Marine Fisheries relies on the expertise and dedication of the NJ Marine Fisheries Council in the formulation of policies and planning related to the management of our marine resources. The council has 10 members representing recreational and commercial fishermen, fish processors, the general public and the Atlantic Coast and Delaware Bay sections of the Shellfisheries Council.

The Marine Fisheries Council is unique in state government in that it can veto marine fishery regulations proposed by the DEP Commissioner. The council routinely contributes to the fishery management process by holding public hearings on marine fishery issues, convening species-related citizen panels as appropriate, and working with the bureau to ensure management programs are implemented that provide for the wise utilization of these important resources.

Of the many research and management programs administered by the bureau, one of the more visible is the Artificial Reef Program. The division began constructing artificial reefs in the ocean in 1984. The objectives of this program are to create habitats for marine fish and shellfish, fishing spots for anglers and underwater attractions for scuba divers.

The division has developed a network of 14 ocean reef sites, where over 1,200 patch reefs have been constructed from a variety of materials, including ships and barges, obsolete army tanks, dredge rock, concrete demolition debris and concrete-ballasted tire units. A patch reef is a one-half to several acre reef created by placing these materials on the sea floor. In 1998, 130 patch reefs were constructed.

Surveys conducted by the division over the past 10 years indicate that the Reef Program is meeting its objectives. Experimental habitats retrieved from the sea floor have revealed dense colonies of marine life



amounting to 30,000 mussels, barnacles, crabs, worms and fish per square foot. In terms of biomass (weight of all organisms), the reef habitats have 700 times more marine life than the same area of sandy sea floor.

Catch surveys show that anglers catch 1 to 2 million fish on New Jersey reefs each year. Divers are using reefs, too, with about 20 percent of all ocean diving activities occurring on the state's reefs.

In a 1997 anglers survey, it was found that the percentage of wreck fishing effort by private boat anglers directed toward artificial reefs increased from 6.7 percent in 1970 to 41.6 percent in 1991 and 54.6 percent in 1995. The most heavily fished reef sites included Sandy Hook, Sea Girt, Barnegat Light and Cape May. Ninety-two percent of the fishermen reported excellent or good fishing success on reefs.

The division's Reef Program took a significant step forward in 1999 with the placement of 700 designed fish habitats on two ocean reef sites. These habitats are constructed entirely of concrete and resemble small igloos with many access holes for fish. They are fabricated by inmate laborers at Southern State Correctional Facility.

The 1500-pound structures are then trucked to a dock site and barged offshore by the Ocean County Bridge Department. The habitats are designed to provide an optimum living place for sea bass, tautog, cunner and other species of marine life. The habitats are widely dispersed over the sandy sea floor, with each habitat functioning as a miniature reef. This is an ongoing project with a goal of deploying 700 habitats each year.

## Bureau of Shellfisheries

James W. Joseph, Chief

The Bureau of Shellfisheries directs shellfish programs and projects on the Atlantic Coast and Delaware Bay. Bureau personnel work with their counterparts in the Bureau of Marine Fisheries, the Marine Enforcement Unit and other state agencies to form and implement plans for the protection and wise use of marine habitat and the state's shellfish resources. Bureau staff also work with the ten members of the New Jersey Shell Fisheries Council, an advisory body to the Commissioner of the Department of Environmental Protection, on issues related to the protection, enhancement and management of the state's shellfish resources.

Bureau personnel are actively involved in efforts to facilitate aquaculture development, the review of coastal development activities to protect coastal habitat, surf clam management in Delaware Bay and field sampling to examine the impacts on the benthic community of offshore sand mining for beach nourishment. The bureau is responsible for the licensing of recreational and commercial shellfishermen with the fees collected dedicated for the protection, enhancement and management of the state's shellfish resources.

In fiscal year (FY) 1999, 1,154 commercial clamming licenses and 6,620 recreational clamming licenses were sold, yielding \$124,256 in revenue for the Shellfisheries, Law Enforcement fund. Surf clam license and landing fees provided \$130,269 in revenue to the Shellfish Management fund. Delaware Bay oyster landing fees generated \$157,298 for the Oyster Resource Development Account. Total revenue collected by the bureau from all sources was \$457,713 in FY 1999.

Three principal areas of responsibility for the bureau include the surf clam management program, hard clam relay and depuration monitoring, and oyster management in Delaware Bay. The surf clam (*Spisula solidissima*) fishery is one of New Jersey's most valuable fisheries, accounting for 70.6% by weight of the state's total bivalve shellfish commercial landings.

Preliminary figures show that 90.7% of the total Mid-Atlantic and New England area catch of surf clams in calendar year 1998 was landed in New Jersey and had an estimated dockside value of \$23.6 million.

Since 1988, the Bureau of Shellfisheries has conducted an annual surf clam stock assessment survey of New Jersey's territorial waters (out to three nautical miles offshore). In FY 1999, a total of 323 stations were sampled from Cape May to Shark River Inlet. Data collected was then used to calculate the standing stock of surf clams in these waters. The standing stock for 1998 was estimated to be 15,948,465 industry bushels (24,164,342 U.S. standard bushels).

The results of the annual survey are reviewed by the Surf Clam Advisory Committee and are the basis for the establishment of the annual harvest quota for the industry. For the 1998-1999 New Jersey inshore surf clam harvest season, the quota was set at 600,000 industry bushels, well below 10% threshold of the estimated standing stock. However, due to sub-par market conditions, the 1998-1999 season harvest of 570,852 industry bushels fell short of the quota.

The relay and depuration programs allow hard clams from moderately polluted waters to be utilized. Clams from such waters are then transplanted to clean bay waters, or processed in a state-approved depuration plant for purification. These programs create jobs in New Jersey and are important contributors to the state's economy, with a dockside value of over \$5.0 million in FY 1999. Harvest for the relay and depuration programs continued in the waters of Raritan and Sandy Hook bays, and the Navesink and Shrewsbury rivers.

The total reported harvest for both programs in FY 1999 was 38.6 million clams, an increase of approximately 15% over FY 1998's harvest. This figure represents over 50% of the total state hard clam landings for the same period as reported by the National Marine Fisheries Service. Sandy Hook and eastern Raritan bays continue to provide the majority of the harvest. The average catch per unit effort (CPUE) for both programs was 2,450 clams per man per day, an 8% decrease from the previous year.

The oyster industry in Delaware Bay continued with the program of limited direct marketing of oysters from the state's natural seed beds. This program was initiated in the spring of 1995, in an



effort to circumvent the disease problems that have plagued the industry since the 1950's. During the fall 1998 and spring 1999 direct market seasons, the Delaware Bay Section of the Shell Fisheries Council recommended that the individual vessel allocations be set at 2,500 and 800 bushels, respectively. These seasonal quota allocations are based upon current conditions of the resource.

Fifty-one vessels participated during the seasons for a total harvest of 120,706 bushels of oysters. The dockside value of the FY '99 harvest was in excess of \$2,410,000. In addition, a one-week fall transplant was initiated allowing industry members to move oysters to private lease grounds to take advantage of holiday market conditions.

The oyster enhancement programs coordinated by the bureau received considerable boosts from the direct market harvest program, which contributed \$183,000 during FY '99 into the "Oyster Resource Development Account" through an industry-paid \$1.25 per bushel landing fee. These funds are typically used for two key management components: the transplanting of oysters from the underutilized upper seed beds to the lower beds, which are primarily used for the direct market program; and for the purchase and planting of clean oyster shell (cultch) on selected areas to enhance the setting of oyster larvae.

Clean cultch material provides an ideal surface to which young oysters attach. During fiscal year 1999, approximately 185,000 bushels of cultch were planted, and a total of 76,000 bushels of oysters were moved during the intermediate transplant. Bureau of Shellfisheries personnel are presently inspecting shell plant areas to evaluate setting success.

## Bureau of Wildlife Management

**Fred Carlson, Chief**

The Bureau of Wildlife Management strives to ensure maintenance of healthy and diverse wildlife populations throughout the state and to maximize the associated economic, aesthetic and recreational benefits through scientifically sound research and management programs. These objectives are increasingly difficult to attain with continued urbanization, reduced access to traditional wildlife management tools (hunting, trapping) and increased intolerance of Canada geese and black bear population levels.

The bureau's Research Unit is responsible for providing the information base necessary for managing game and furbearing animals in New Jersey. This includes monitoring wildlife population numbers and health, estimating hunter and trapper harvest levels and assessing the impact of wildlife on land use and New Jersey's expanding human population. The information collected and compiled is essential to the Division's Fish and Game Council for determining the annual hunting and trapping regulations and evaluating the impact of past regulation changes.

The Wildlife Control Unit assists farmers and homeowners in mitigating wildlife damage to crops, nurseries and residential landscaping. It also assists the public with nuisance wildlife problems and responds to emergency situations such as bear conflicts in suburban areas.

The Rockport Pheasant Farm raises 50,000 pheasants each year for stocking on designated Wildlife Management Areas.

Other public services include answering questions regarding wildlife, hunter harvests and hunting regulations; administering special programs such as assisting hunters with disabling conditions; and the development of cooperative wildlife management programs with other agencies and local governments.

In 1999, the division (in consultation with the Department of Agriculture) prepared a report on the state's deer population. The report summarized the

current status of the deer population, identified areas with a high level of deer-human conflict, evaluated factors contributing to deer overabundance, developed a plan to address the factors contributing to deer overabundance, and provided specific recommendations to alleviate deer related conflicts, especially in the agricultural community.

As a result, the bureau prepared the **Governor's Report on Deer Management in New Jersey**. The conclusion: deer remain a valuable public resource; deer hunting remains the most efficient and economical means of deer population control in areas that can be safely hunted; yet supplemental approaches to deer management are necessary.

In urbanizing regions of the state, the division's Community Based Deer Management Program continues to provide alternative approaches to reducing and controlling deer. In agricultural production areas, changes in statutes and regulations will enhance deer management efforts. Other approaches to solving deer over-abundance problems require increased funding for research, public education and management programs, along with the cooperation of the various stake holders, including farmers, hunters, government officials, legislators and the public.

The problem of deer overabundance in an urbanizing environment can be resolved through changes in deer hunting regulations, cooperative efforts between landowners, hunters and government officials, and adequate funding for new and innovative programs.

